

# LASER RANGING AS A PRECISE TOOL TO EVALUATE GNSS ORBITAL SOLUTIONS

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- We use precise laser range observations to carry out independent checks on the accuracy of published orbits of a subset of the GPS and GLONASS navigational satellites;
- SLR results provide an accurate assessment of the radial quality of the IGS orbits;
- Particularly for the GLONASS satellites, this quality has improved in recent months: all satellites now  $\sim 10$ cm RMS;
- The well-known radial offset of a few cm remains between the laser measurements IGS-derived range to GPS 35 and 36
  - High-elevation passes give offsets of  $-63$  and  $-31$ mm respectively
- Very useful tools for upcoming two pilot satellites of EU GALILEO system ( $\sim 2005$ )